

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/695,233 Confirmation No. 4954
Applicant : Greenberg, Harold H.
Filed : 10/28/2003
Title : LINTEL SUPPORTED MASONRY WALL SYSTEM AND METHOD

TC/A.U. : 3635
Examiner : Laux, Jessica L.

Docket No. : 3003-A-6

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Appellant submits herewith its Appeal Brief in accordance with 37 C.F.R. § 41.37 and MPEP 1205 in the above identified application. This Brief is accompanied by the required fee as per 37 C.F.R. § 41.20(b)(2).

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Real Party in Interest

The real party in interest is Pyramid Retaining Walls, LLC of Prescott, Arizona.

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Related Appeals and Interferences

None

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Status of Claims

Claims 1-34 originally filed

First Office Action dated 02/10/2006

Restriction required between two species, claims 10-16 and 19-22 were withdrawn from consideration

Claims 1-2, 4-8, 26-30 were objected to under 35 U.S.C. 112

Claims 1-9, 17, 18 and 23-34 were rejected under 35 U.S.C. 103(a)

Response to Office Action 5/25/2006

Claims 1-9, 17-18 and 23-34 were elected with traverse

Claims 10-16 and 19-22 were cancelled

Second and Final Office Action dated 07/28/2006

Claims 1-2, 4-8, 26-30 were objected to under 35 U.S.C. 112

Claims 1-9, 17, 18 and 23-34 were rejected under 35 U.S.C. 103(a)

Amendment filed with Request for Continued Examination 10/26/2006

Claims 1, 3, 5, 6, 8, 17, 18, 23, 26, 28, 30-32 amended

Claim 35 newly added

Office Action dated 02/23/2007

Claims 1 and 26 were objected to under 35 U.S.C. 112

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Claims 1-9, 17, 18 and 23-35 were rejected under 35 U.S.C. 103(a)

Final Office Action dated 11/29/2007

Claims 1-9, 17, 18 and 23-35 were rejected under 35 U.S.C. 103(a)

Claims 1-9, 17, 18 and 23-35 are the subject of this Appeal.

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Status of Amendments

No amendments filed subsequent to the final rejection. All amendments to the claims presented by Appellant prior to November 29, 2007 final rejection have been entered. No amendments have been submitted or filed after the issuance of the November 29, 2007 final rejection in the present application.

Summary of Claimed Subject Matter

A summary of the independent appealed claims and dependent appealed claims are included with references to corresponding specification page and line numbers, and drawings are as follows:

Claim 1. A wall structure having an above ground wall, said wall structure comprising in combination:

a) a plurality of footings disposed at least partially in the ground at each end of said wall (Reference Numerals 20, 22 of Fig. 1; Page 7, Lines 17-18);

b) said wall including at least a lintel (Reference Numeral 32 of Figs. 1 and 3; Page 8, Lines 14-18) each end of said lintels being located upon and receiving support from adjacent ones of said footings to locate each of said lintels above ground and a plurality of courses (Reference Numeral 16 of Fig. 1; Page 9, Lines 3-5) extending upwardly from each of said lintels;

c) at least one tensioning rod extending upwardly from each of said lintels into at least some of said plurality of courses (Reference Numeral 60 of Figs. 1 and 3; Page 8, Lines 18-21);

d) a post extending upwardly from each said footings (Reference Numerals 28, 30 of Figs. 1 and 2; Page 7, Lines 10-13); and

e) at least one further tensioning rod extending upwardly from within each of said footings and into the respective one of said posts and adapted for resisting tilting of said wall (Reference Numeral 40 of Figs. 2 and 5; Page 7, Lines 18-20).

2. The wall structure as set forth in Claim 1 including a plate disposed on each of said footings for supporting an end of said lintel (Reference Numeral 24 of Figs. 1 and 2; Page 7, Line 19; Page 8, Line 2).

3. The wall structure as set forth in Claim 1 wherein each of said posts includes a vertical slot for receiving an end of said wall (Reference Numerals 52 and 54 of Fig. 5; Page 8, Line 9-10).

4. The wall structure as set forth in Claim 3 including a plate disposed on each of said footings for supporting said post and said lintel (Reference Numeral 24 of Figs. 1 and 2; Page 7, Line 19; Page 8, Line 2).

5. The wall structure as set forth in Claim 3 wherein an end of each of said lintels extends into said slot of each of adjacent ones of said posts (Reference Numerals 52 and 54 of Fig. 5; Page 8, Lines 9-10).

6. The wall structure as set forth in Claim 3 including at least one rebar (Reference Numeral 62 of Fig 3; Page 8, Lines 19-20) disposed longitudinally within each of said lintels and grout for imbedding said rebar within said lintel and a lower end (Reference Numeral 58 of Fig 3; Page 8, Lines 18-19) of at least one of said tensioning rods (Reference Numeral 60 of Figs. 1 and 3; Page 8, Lines 18-21).

7. The wall structure as set forth in Claim 1 wherein said lintel is generally C-shaped in cross section (Reference Numeral 32 of Figs. 1 and 3; Page 8, Lines 14-18).

8. The wall structure as set forth in Claim 1 wherein said lintel includes a longitudinally oriented upwardly facing opening (Fig. 3 and Fig. 9; Page 8, Lines 15-16).

9. The wall structure as set forth in Claim 8 wherein at least one of said tensioning rods extend upwardly through said opening (Reference Numeral 60 of Fig. 3; Page 8, Line 18; Page 9, Line 3).

17. The wall structure as set forth in Claim 1 wherein said plurality of courses comprise concrete masonry units (Page 9, Lines 3-4).

18. The wall structure as set forth in Claim 1 wherein said plurality of courses comprise bricks having at least one passageway therethrough (Page 9, Lines 15-17).

23. A method for constructing an above ground wall having a plurality of wall sections, said method comprising in combination:

- a) developing a footing (Page 7, Lines 9, 17-18; Page 9, Line 20) at least partially in the ground at each end of the wall sections of the wall to be built;
- b) installing at least one tension rod to extend upwardly from each footing (Page 7, Lines 18-19);
- c) placing a plate on each footing (Page 7, Lines 19-20);
- d) building a post on each plate with blocks (Page 7, Lines 9-10) to provide a vertical cavity (Page 8, Lines 3-4) for receiving said at least one tensioning rod and to provide a vertical slot for receiving an end of the wall section to be built (Page 8, Lines 9-10);
- e) placing a lintel on each of the plates to locate the ends of the lintel in the slots of the respective posts and above ground for supporting a wall section (Page 8, Lines 17);

f) laying a plurality of courses upon the lintel to define the wall section ,
each of the courses extending into the slots of the respective one of the posts (Page 9, Lines 3-5);
and

g) installing a plurality of tensioning rods extending from within the lintel
upwardly into the wall section in conjunction with exercise of said step of laying (Page 8, Lines
18-20).

24. The method as set forth in Claim 23 wherein said step of laying includes
the step of laying concrete masonry units (Page 9, Lines 3-4).

25. The method as set forth in Claim 23 wherein said step of laying includes
the step of laying bricks (Page 9, Lines 15-16).

26. A wall structure having an above ground wall, said wall structure
comprising in combination:

a) a plurality of footings disposed at least partially in the ground at each
end of said wall (Reference Numerals 20, 22 of Fig. 1; Page 7, Lines 17-18);

b) said wall including a lintel (Reference Numeral 32 of Figs. 1 and 3;
Page 8, Lines 14-18), each end of said lintel being supported above ground on adjacent ones of

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said footings and a plurality of courses (Reference Numeral 16 of Fig. 1; Page 9, Lines 3-5)
extending upwardly from said lintel;

c) at least one tensioning rod extending upwardly from said lintel into said wall (Reference Numeral 60 of Figs. 1 and 3; Page 8, Lines 18-21);

d) a post extending from a respective one of said plurality of footings for supporting an end of said wall (Reference Numerals 28, 30 of Figs. 1 and 2; Page 7, Lines 10-13), said post including a vertical slot for receiving the corresponding end of said wall (Reference Numeral 52 and 54 of Fig 5; Page 8, Lines 9-10); and

e) at least one further tensioning rod extending upwardly from within each respective one of said plurality of footings into the respective one of said posts and adapted for resisting tilting of said post (Reference Numeral 40 of Figs. 2 and 5; Page 7, Lines 18-20).

27. The wall structure as set forth in Claim 26 including a starter course disposed on the respective one of said plurality of footings for supporting an end of said lintel (Reference Numeral 106 of Fig. 10; Page 10, Line 1; see also Page 8, Line 1).

28. The wall structure as set forth in Claim 26 including at least one rebar (Reference Numeral 62 of Fig 3; Page 8, Lines 19-20) disposed longitudinally within said lintel and grout for imbedding said rebar and a lower end (Reference Numeral 58 of Fig 3; Page 8,

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Lines 18-19) of said tensioning rod within said lintel (Reference Numeral 60 of Figs. 1 and 3; Page 8, Lines 18-21).

29. The wall structure as set forth in Claim 26 wherein said lintel is generally C-shaped in cross section (Reference Numeral 32 of Figs. 1 and 3; Page 8, Lines 14-18).

30. The wall structure as set forth in Claim 26 wherein said lintel includes a longitudinally oriented upwardly facing opening (Fig. 3 and Fig. 9; Page 8, Lines 15-16).

31. The wall structure as set forth in Claim 30 wherein each of said tensioning rods extends upwardly through said opening (Reference Numeral 60 of Fig. 3; Page 8, Line 18; Page 9, Line 3).

32. A method for constructing an above ground wall, said method comprising in combination:

a) developing a footing at least partially in the ground at each end of the wall to be built (Page 7, Lines 9, 17-18; Page 9, Line 20);

b) installing at least one tensioning rod to extend upwardly from each footing (Page 7, Lines 18-19);

c) building a post on each footing (Page 7, Lines 9-10) to provide a vertical cavity (Page 8, Lines 3-4) for receiving the at least one tensioning rod and to provide a vertical slot for receiving an end of the wall to be built (Page 8, Lines 9-10);

d) locating the ends of a lintel in the slots of the respective posts and upon the footings to locate the lintel above ground (Page 7, Lines 13-14; Page 8, Line 17);

e) laying a plurality of courses upon the lintel, each of the courses extending into the slots of the respective one of the posts (Page 9, Lines 3-5); and

f) installing a plurality of tensioning rods extending from within the lintel upwardly into the wall in conjunction with exercise of said step of laying (Page 8, Lines 18-20).

33. The method as set forth in Claim 32 wherein said step of laying includes the step of laying concrete masonry units (Page 9, Lines 3-4).

34. The method as set forth in Claim 32 wherein said step of laying includes the step of laying bricks (Page 9, Lines 15-16).

35. The method as set forth in Claim 32 wherein said step of building includes the step of laying blocks (Page 8, Lines 2-3).

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Grounds for Rejection to be Reviewed on Appeal

Claims 1-34 were filed in this application. Claims 10-16 and 19-22 have been cancelled. Claim 35 was added.

I. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg.

II. Claims 7-9, 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg and further in view of U.S. Patent No. 5,864,999 to Wallin.

III. Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg.

IV. Claims 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg.

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V. Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg and further in view of U.S. Patent No. 5,864,999 to Wallin.

VI. Claims 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg.

Argument

Appellant believes independent Claim 1, 23, 26, and 32 are patentable. Appellant believes the Claims 2-9, 17-18, 24-25, 27-31, and 33-35 include limitations that each represent patentable advances over the other Claims.

I. Rejection of Claims 1-6 under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg

A. The Cited Prior Art

Gravier: Cited Patent No. to Gravier (hereinafter, “Gravier”) discloses a mortar-free (Col. 2, Lines 15-16, 21-22) block-fence block array (Col. 2, Lines 28-29) situated upon a foundation leveling pad (Reference Numeral 18, Col. 4, Lines 1-3) and suspended between posts, also known as footings (Reference Numerals 16 and 17, Col. 4, Line 1) (see also generally Col.2, Lines 1-14). The leveling pad is “a shallow gravel or rock-filled trench”(Reference Numeral 18, Col. 5, Lines 43-47). The mortar-free block array taught by Gravier is provided vertical support in two ways. First, posts are supported vertically by reinforcing rod(s) that can be cast within the raw posts (Col. 5, Lines 15-18; Col. 5, Lines 11-13) through cores (Fig. 3 and Fig. 4 at 55, 55A and 55B)(see also. Col. 6, Lines 7-8). The posts are then filled with concrete (Col. 6, Lines 9-10) (Col. 6, Lines 28-29). To support the block wall itself, instead of mortar between courses,

the block arrays contain a complementary top and bottom surface pattern (see Figs. 2, 26, 27; Col. 4, Lines 4-44) wherein the blocks are specially designed to include complementary features to improve the “overall stability of the finished array” (Col. 4, Lines 43-44). Blocks are formed with upwardly protruding ridge projections (Figs. 2, 29, 30; Figs. 3-4, 49, 50) that fit and interlock with the bottom surface (Figs. 2, 27) recesses (Reference Numerals 37 and 38, 52 and 53). The blocks form this puzzle pattern to support the structure without mortar. The form of the blocks is integral with the invention (Col. 4, Line 21) and necessary to provide the mortar-free arrays (Col. 4, line 36-38).

The block array is supported horizontally by horizontal support beams that run longitudinally through the specially designed blocks (Col. 2, Lines 5-10; Col. 6, Lines 13-14) (see also the unmarked circular feature running longitudinally through block 20 in Fig. 2). The block array cores are then also filled with concrete (Col. 6, Lines 30-31). Gravier teaches use of vertical beams only in the post column blocks (Col. 6, Lines 31-32).

Greenberg: Cited Patent No. to Greenberg (hereinafter, “Greenberg”) discloses a masonry block wall, with added support by way of vertical post-tensioning rods. The block wall has mortar between successive courses (Col. 2, Lines 10-11) for vertical support, and mortarless tongue-and-groove joints along vertical joints (Col. 2, Lines 11-14, 55-58) for horizontal support. Post tensioning rods are threaded between block cores and may be anchored in a footer to support the wall (Col. 2, Lines 14-18).

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Greenberg teaches specially formed blocks to allow for the mortar-less vertical joint. “The blocks include vertically extending voids 28 and may include vertically extending ridges 29 on one side and corresponding grooves 30 on the opposite side” (Col. 2, Lines 60-63.

The post-tensioning rods extend through the block wall aligned core recesses. “It is important to note that the post-tensioning rods extend vertically through the voids 28 in the corresponding masonry blocks...” (Col. 3, Lines 2-4). The post-tensioning rods are anchored in a footer. (Col. 2, Line 66). The footer is extended downwards to accommodate the anchors and provide sufficient strength and prevent cracks in the footer (Col. 3, Lines 42-50).

B. The Examiner’s Rejection

In responding to Applicant’s arguments, in the action dated November 29, 2007, Examiner cites elements 14 and 15 of Gravier as being similar in function to the lintels of the present invention.

The present invention teaches lintel supported block walls. Posts of H-shaped blocks define vertical slots into which block wall edges fit. The posts extend upwardly from footings. The lintels are supported on either end by the footings, or upon a plate on top of the footings. The wall section is then constructed on, and with, the lintel and rests between successive posts (but is not mechanically attached to the slots) and on the lintel. Accordingly, the wall can rise within the slots in the posts at opposed ends upon an application of lifting force on the lintel. The lintel is situated “above ground”, thus accommodating heaving of the ground.

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Elements 14 and 15 of Gravier are described as “fence block arrays” (Col. 3, Line 66) and form the walls of Gravier’s block wall. The arrays are not equivalent of lintels, but instead form the planar walls of the invention. Examiner notes the block bottom-side ridges, 27, as providing support onto which to construct the rest of the wall, but fails to note that all of the blocks in the array, contain such feature. Utilizing Examiner’s construction of the Gravier’s disclosure, each course serves the same function as the lintel as it would in the present invention. Such understanding is not recognized by one having ordinary skill in the art. The present invention teaches a single lintel to support a single block wall, the lintel being supported on two ends by a footing.

Element (b) of Claim 1, in the present invention, requires a lintel supported on each end by a footing. Furthermore, Claim 1 (b) requires the lintels to be above ground, and the placement of courses on the lintels. Wherein Gravier’s block arrays (14 and 15) are the equivalent of the present courses, the only equivalent for the lintel might be the leveling pads of Gravier. But as discussed, such leveling pads may provide support for the wall, but are not themselves supported by the footings, nor do they function as a lintel.. The leveling pads are gravel filled trenches supported by the underlying ground. If anything, a trench is a structure formed underground, not above ground as recited in the present invention.

Further, it is not obvious to add the tensioning rods of Greenberg into Gravier, as Gravier teaches the use of tensioning rods and explicitly leaves them out of the wall themselves. In the embodiment of Gravier that includes horizontal support beams amongst the block-arrays, it is

not obvious how the two items would cross through the center of the blocks, nor how the rods would be manufactured or installed. Gravier already provides for horizontal support via beams, and vertical support via ridges and concrete center. There is no indication that Greenberg's rods will provide structural support to the wall (Page 3).

The main function and purpose of the Gravier invention is that of using specially configured blocks that have ridges and grooves to provide an interlock between adjacent blocks. As set forth in Column 3, Lines 1-7, the primary object of the Gravier invention is to provide "interlocking stackable block structures for erecting a shock-resistant wall array or arrangement, where the individual block structures are provided with interlocking top and bottom surfaces which define intermediate webs for supporting the individual blocks in a vertically stacked arrangement." In the Greenberg patent, conventional courses of blocks are used that have no interlocking feature and the junctions between adjacent blocks are filled with grout. Thus, the Greenberg wall does not have the features and end results espoused in the Gravier patent. To strengthen the Greenberg wall, tensioning rods are employed. Such tensioning rods are not necessary for the Gravier wall. Therefore, one skilled in the art would not be induced or inclined to go to the additional expense in terms of material and labor to install tensioning rods since the configuration of the interlocking blocks provides the requisite strength. One must therefore come to the inescapable conclusion that the tensioning rods taught in Greenberg would be unlikely to be used by a mason in a wall constructed in accordance with the Gravier teachings since such a wall inherently has the strength sought by the Greenberg wall.

With regard to Claims 2 and 4, Examiner cites the bottom block on the posts as being the plates upon which a lintel will rest. However, Examiner already cited the same bottom block as constituting the end of the lintels themselves in Examiner's rejection of Claim 1. It is not understood how a functional piece of Gravier serving as the bottom of each post, can also function as the end of a lintel, while simultaneously serving as the plate upon which the lintel (itself) is supported.

With regard to Claim 6, it is not seen how the vertically spaced horizontal beams of Gravier would be located in the lintel. As Gravier notes, the horizontal beams float between the columns (Col. 2, Line 18). If there are more than one horizontal beam, how will each serve "for imbedding said rebar within said lintel and a lower end of... [the] tensioning rod"?

C. Examiner Fails to Provide Sufficient Motivation to Combine Gravier and Greenberg

Examiner contends that the combination of references comprising multiple independently functioning elements renders the present invention obvious, yet Examiner fails to suggest why such a combination is obvious other than to say the addition of the tensioning rods of Greenberg would provide "additional structural support...if...required" (Page 3). As stated above, Gravier teaches a structurally solid wall with proper vertical support and teaches a use of the tensioning rods in a different part of the wall such that one ordinarily skilled in the art will recognize as to build a structurally sound wall.

A shopping cart approach to support an obviousness rejection is not permissible. That is, it is not appropriate to pick elements from two or more patents and combine them to meet the recitations of a claim unless there is some teaching or at least a suggestion within the references themselves for such combination. In instances where there is a teaching away from a proposed combination of teachings, a rejection based upon obviousness is highly inappropriate.

The Supreme Court discussed the test to bar a patent for obviousness under 35 U.S.C. 103.¹ *KSR* discusses the limited and rigid application of the teaching, suggestion and motivation test (TSM) when applied to all cases as the only method of proving obvious, in contrast to the *Graham* factors.

KSR did not abandon TSM, but only limited a rigid, inflexible approach that would not do justice to the “functional approach” adopted by *Hotchkiss* and reaffirmed by *Graham*.² Regarding hindsight bias, *KSR* warns that it is necessary to identify a ‘reason to combine elements’ in the prior art (in a showing of obviousness) in order to avoid hindsight bias.³ *KSR*

¹ *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007).

² *KSR*, 82 USPQ2d at 1395. “A teaching, suggestion, or motivation to combine known elements in order to show that the combination is obvious, the Court of Customs and Patent Appeals captured a helpful insight. See *Application of Bergel*, 292 F.2d 955, 956–957 [130 USPQ 206] (1961). As is clear from cases such as *Adams*, a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.” *KSR*, 82 USPQ2d at 1396.

³ “A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning. See *Graham*, 383 U.S., at 36 (warning against a “temptation to read into the prior art the teachings of the invention in issue” and instructing courts to “guard against slipping into the

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notes cases decided between the *KSR* appellate decision and the Supreme Court decision that embraced the broader TSM test adopted by the Supreme Court in *KSR*, notably *Dystar* and *Alza*.⁴

Along the lines of the *KSR* citation, *Dystar* cites *In re Dembiczak* for the premise that TSM is cannot be a “rigid categorical rule”.⁵ *In re Dembiczak* identifies those cases where the *Graham* factors must be tempered by the TSM test. *In re Dembiczak* defines when to (more or less) strongly adhere to the TSM test.⁶

use of hindsight’ ” (quoting *Monroe Auto Equipment Co. v. Heckethorn Mfg. & Supply Co.*, 332 F.2d 406, 412 [141 USPQ 549] (CA6 1964))).” *KSR*, 82 USPQ2d at 1397.

⁴ “We note the Court of Appeals has since elaborated a broader conception of the TSM test than was applied in the instant matter. See, e.g., *Dystar Textilfarben GmbH & Co. Deutschland KG v. C. H. Patrick Co.*, 464 F.3d 1356, 1367 [80 USPQ2d 1641] (2006)....The extent to which they may describe an analysis more consistent with our earlier precedents and our decision here is a matter for the Court of Appeals to consider in its future cases.” *KSR*, 82 USPQ2d 1397-1398.

⁵ “[T]he suggestion test is not a rigid categorical rule. The motivation need not be found in the references sought to be combined, but may be found in any number of sources, including common knowledge, the prior art as a whole, or the nature of the problem itself. *In re Dembiczak* , 175 F.3d 994, 999 [50 USPQ2d 1614] (Fed. Cir. 1999). As we explained in *Motorola, Inc. v. Interdigital Tech. Corp.*, 121 F.3d 1461, 1472 [43 USPQ2d 1481] (Fed. Cir. 1997), “there is no requirement that the prior art contain an express suggestion to combine known elements to achieve the claimed invention. Rather, the suggestion to combine may come from the prior art, as filtered through the knowledge of one skilled in the art.” *Dystar*, 80 USPQ2d at 1645

⁶ “Section 103 requires the oft-difficult but critical step of casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. See, e.g., *W.L. Gore & Assoc., Inc. v. Garlock, Inc.* , 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed.Cir. 1983). Close adherence to this methodology is especially important in the case of less technologically complex inventions, where the very ease with which the invention can be understood may prompt one “to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.” *Id.*

“Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. (Citations omitted). See also *Graham* , 383 U.S. at 18, 148 USPQ at 467 (“strict observance” of factual predicates to obviousness conclusion required). Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight. (Citations omitted)). In this case, the Board fell into the hindsight trap.” *In re Dembiczek*, 50 USPQ2d at 1617.

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In re Dembiczak suggests a close adherence to the TSM test to temper the *Graham* factors, more so in low-tech instances, to avoid the hindsight bias predicted in *Graham*. Such a more fluid application of TSM based on these situations was adopted in *Dystar*, and cited in *KSR*, exemplifies the proper use of TSM. Therefore, *In re Dembiczak* defines the proper role for TSM, that it should be more strictly applied in low-tech patents.

As this patent application is directed to a relatively low technologically advanced art, the present review requires a strict adherence to TSM. As the examiner presents a lower threshold of reasoning to combine the prior art references, and altogether neglects TSM for many elements and combinations, Examiner's rejection is invalid in light of *KSR*. By failing to identify explicit reasoning to show the proper teaching, suggestion, or motivation in the prior art that suggests that the present invention presents a novel combination, therefore the rejection is invalid.

II. Rejection of Claims 7-9, 17-18 under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg and further in view of U.S. Patent No. 5,864,999 to Wallin.

Appellant reiterates its previous arguments, those above and in previous Remarks, with regard to the device taught by Gravier, to the device taught by Greenberg, and to the device taught by Wallin.

A. The Cited Prior Art

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Wallin: Cited Patent No. to Wallin (hereinafter, "Wallin") discloses a modular wall system with precast panels. The panels are supported by a lower footing 9 and an upper lintel 10 at the top. The footing and lintel are anchored together by leg panels 4 (Col. 4, Lines 59-60). Wallin's lintel has an open trough 17 facing upwards that is filled with cementitious filling 25. The lintel is at the uppermost section of the wall and does not support any objects above it.

B. The Examiner's Rejection

Examiner cites the footing of Wallin to combine with Gravier and Greenberg to conjure a lintel. As mentioned, Gravier fails to include the vertical tensioning rods within the block-array. In view of Greenberg, Examiner adds vertical support to Gravier. However, Greenberg is explicit when describing how to incorporate the tensioning rods into the footer, stating that the footer is provided with increased depth at those positions where the tensioning rods are placed (see Col. 3, Lines 42-50) to allow such a support structure to function properly in a block wall. Examiner does not mention such discrepancy and fails to note any teaching, suggestion or motivation to combine the references in this manner while ignoring the teachings of Greenberg.

In rejecting Claim 18, the novel use of bricks, rather than blocks, in construction of the wall, Examiner claims such a difference is a "mere design consideration" (Page 6). Yet, Gravier goes to lengths describing the type, style, elements, fabrication, and reasons for using specially designed blocks to construct a mortar-free block-array wall. The blocks have ridges for vertical support; the blocks have cores for emplacement of concrete; the blocks have horizontal bores for horizontal floating beams, etc. As Gravier is directed to specially designed wall that is mortar-

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free, one ordinarily skilled in the art would not see how a mere a 'design change' would allow one to provide bricks in the Gravier wall. Furthermore, Greenberg takes advantage of the hollow blocks to construct a low-expense, strong wall that includes tensioning rods. The creation of bricks with a passageway is no slight undertaking and would not allow Greenberg to provide inexpensive construction.

Both Greenberg and Gravier teach away from the use of ordinary bricks. Under Examiner's contention, Gravier's mortar-free block array would turn into a mortared brick wall without horizontal support beams, and Greenberg's block wall would become prohibitively expensive. Neither change is a mere design consideration, and thus not prima facie obvious.

The Wallin patent is directed to a modular wall system having a plurality of panels. It is not directed to a wall formed of courses of blocks or bricks. According, the considerations attendant construction of a wall formed from a plurality of aligned panels are very different to a mason or brick layer from a wall formed by a plurality of courses of blocks or bricks. These two types of walls not only have different structural elements, but serve very different purposes. In particular, as noted in Wallin, the vertical wall panels are used to hold back (provide support for) filled dirt on one side of the wall. Thereby, the lateral forces imposed upon the wall are particularly well countered by vertical wall panels as opposed to courses of blocks or bricks unless suitably reinforced. It may also be pointed out that the bottom of the Wallin wall is not above ground, as recited in these rejected claims. In fact, the Wallin wall cannot be above

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ground in order to serve its intended purpose. Wallin's footing is no lintel, but more akin to Gravier's in-ground leveling pad / trench.

III. Rejection of Claims 23-25 under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg.

Appellant reiterates its previous arguments, those above and in previous Remarks, with regard to the device taught by Gravier, and to the device taught by Greenberg. As the invention includes elements not taught in the prior art, a method for constructing a wall with the steps that include such elements, it is not obvious.

Claims 23-25 have been rejected as reciting subject matter obvious over certain teachings contained in the Gravier and Greenberg patents for reasons set forth with respect to Claims 1-9 and 17-18. Claims 23-25 are method claims, which define a methodology for constructing a wall having the beneficial features of the present invention.

For reasons set forth above, neither the Gravier nor the Greenberg patent teach the use of a lintel supported above ground. Accordingly, the step recited in paragraph (e) of Claim 23 "placing a lintel on each of the plates to locate the ends of the lintel in the slots of the respective posts and above ground" cannot possibly be carried out by any structure taught in either of the two patents used in support of the 35 U.S.C. § 103 rejection of Claim 23-25.

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For reasons set forth above, the structure resulting from exercise of the steps set forth in these method claims would result in a wall structure different from any wall structure that would result from one skilled in the art having the teachings of the Gravier and Greenberg patents before him/her. Accordingly, these method claims recite the construction of a wall that is not suggested by nor certainly not obvious over any construction steps that one skilled in the art would undertake having the Gravier and Greenberg teachings before him/her.

IV. Rejection of Claims 26-31 under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg.

Appellant reiterates its previous arguments, those above and in previous Remarks, with regard to the device taught by Gravier, and to the device taught by Greenberg.

For reasons set forth above, the Gravier wall would not be modified by a mason to incorporate the tensioning rods of Greenberg. Moreover, the present invention is directed to an above ground wall which requires the use of a lintel. Neither the Gravier wall nor the Greenberg wall is above ground. The Gravier element contended by the Examiner to comprise a lintel is not in fact a lintel. It is simply a reinforced course lying on the ground and receiving support from the ground throughout its length.

For these and the previously recited reasons, the presently recited wall structure is far beyond any obvious combination of teachings set forth in the Gravier and Greenberg patents.

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V. Rejection of Claims 29-31 under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg and further in view of U.S. Patent No. 5,864,999 to Wallin.

Appellant reiterates its previous arguments, those above and in previous Remarks, with regard to the device taught by Gravier, to the device taught by Greenberg, and to the device taught by Wallin.

For reasons set forth above, the Wallin patent is insufficient to cure the deficiencies of the Gravier patent and any combination of the Greenberg teachings incorporated therein.

VI. Rejection of Claims 32-35 under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg.

Appellant reiterates its previous arguments, those above and in previous Remarks, with regard to the device taught by Gravier, and to the device taught by Greenberg.

Claims 32-34 are method claims that have been rejected as reciting subject matter obvious over certain teachings contained in the Gravier and Greenberg patents. By exercising the steps recited, a mason would end up with a wall that is unlike either the Gravier or Greenberg walls. Moreover, the resulting wall would have features that would not and could not be considered obvious combinations of elements set forth the Gravier and Greenberg patents for reasons set forth above. It is therefore respectfully submitted that method Claims 32-34 recite

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steps that a mason, having the Gravier and Greenberg teachings before him, would not undertake.

VII. Conclusion

In view of the clear lack of need for incorporating tensioning rods in the Gravier wall, in view of the particularly configured blocks to obtain stability and robustness, and the fact that the Gravier wall is not an above ground wall, coupled with the inadequacy of the Greenberg patent to supply these missing teachings, it is believed that the application is in condition for allowance.

Appellant respectfully requests reversal, individually and collectively, of the Examiner's rejection of claims 1-9, 17-18 and 23-35 for the reasons discussed above.

Appellant respectfully requests reversal of the Examiner's rejection of Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg for the reasons discussed above.

Appellant respectfully requests reversal of the Examiner's rejection of Claims 7-9, 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg and further in view of U.S. Patent No. 5,864,999 to Wallin for the reasons discussed above.

Appellant respectfully requests reversal of the Examiner's rejection of Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to

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Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg for the reasons discussed above.

Appellant respectfully requests reversal of the Examiner's rejection of Claims 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg for the reasons discussed above.

Appellant respectfully requests reversal of the Examiner's rejection of Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg and further in view of U.S. Patent No. 5,864,999 to Wallin for the reasons discussed above.

Appellant respectfully requests reversal of the Examiner's rejection of Claims 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent No. 5,623,797 to Gravier et al., in view of U.S. Patent No. 4,726,567 to Greenberg for the reasons discussed above.

Claims Appendix

1. A wall structure having an above ground wall, said wall structure comprising in combination:
 - a) a plurality of footings disposed at least partially in the ground at each end of said wall;
 - b) said wall including at least a lintel, each end of said lintels being located upon and receiving support from adjacent ones of said footings to locate each of said lintels above ground and a plurality of courses extending upwardly from each of said lintels;
 - c) at least one tensioning rod extending upwardly from each of said lintels into at least some of said plurality of courses;
 - d) a post extending upwardly from each said footings; and
 - e) at least one further tensioning rod extending upwardly from within each of said footings and into the respective one of said posts and adapted for resisting tilting of said wall.
2. The wall structure as set forth in Claim 1 including a plate disposed on each of said footings for supporting an end of said lintel.
3. The wall structure as set forth in Claim 1 wherein each of said posts includes a vertical slot for receiving an end of said wall.

4. The wall structure as set forth in Claim 3 including a plate disposed on each of said footings for supporting said post and said lintel.

5. The wall structure as set forth in Claim 3 wherein an end of each of said lintels extends into said slot of each of adjacent ones of said posts.

6. The wall structure as set forth in Claim 3 including at least one rebar disposed longitudinally within each of said lintels and grout for imbedding said rebar within said lintel and a lower end of at least one of said tensioning rods.

7. The wall structure as set forth in Claim 1 wherein said lintel is generally C-shaped in cross section.

8. The wall structure as set forth in Claim 1 wherein said lintel includes a longitudinally oriented upwardly facing opening.

9. The wall structure as set forth in Claim 8 wherein at least one of said tensioning rods extend upwardly through said opening.

10-16. (Cancelled)

17. The wall structure as set forth in Claim 1 wherein said plurality of courses comprise concrete masonry units.

18. The wall structure as set forth in Claim 1 wherein said plurality of courses comprise bricks having at least one passageway therethrough.

19-22. (Cancelled)

23. A method for constructing an above ground wall having a plurality of wall sections, said method comprising in combination:

a) developing a footing at least partially in the ground at each end of the wall sections of the wall to be built;

b) installing at least one tension rod to extend upwardly from each footing;

c) placing a plate on each footing;

d) building a post on each plate with blocks to provide a vertical cavity for receiving said at least one tensioning rod and to provide a vertical slot for receiving an end of the wall section to be built;

e) placing a lintel on each of the plates to locate the ends of the lintel in the slots of the respective posts and above ground for supporting a wall section;

f) laying a plurality of courses upon the lintel to define the wall section, each of the courses extending into the slots of the respective one of the posts; and

g) installing a plurality of tensioning rods extending from within the lintel upwardly into the wall section in conjunction with exercise of said step of laying.

24. The method as set forth in Claim 23 wherein said step of laying includes the step of laying concrete masonry units.

25. The method as set forth in Claim 23 wherein said step of laying includes the step of laying bricks.

26. A wall structure having an above ground wall, said wall structure comprising in combination:

a) a plurality of footings disposed at least partially in the ground at each end of said wall;

b) said wall including a lintel, each end of said lintel being supported above ground on adjacent ones of said footings and a plurality of courses extending upwardly from said lintel;

c) at least one tensioning rod extending upwardly from said lintel into said wall;

d) a post extending from a respective one of said plurality of footings for supporting an end of said wall, said post including a vertical slot for receiving the corresponding end of said wall; and

e) at least one further tensioning rod extending upwardly from within each respective one of said plurality of footings into the respective one of said posts and adapted for resisting tilting of said post.

27. The wall structure as set forth in Claim 26 including a starter course disposed on the respective one of said plurality of footings for supporting an end of said lintel.

28. The wall structure as set forth in Claim 26 including at least one rebar disposed longitudinally within said lintel and grout for imbedding said rebar and a lower end of said tensioning rod within said lintel.

29. The wall structure as set forth in Claim 26 wherein said lintel is generally C-shaped in cross section.

30. The wall structure as set forth in Claim 26 wherein said lintel includes a longitudinally oriented upwardly facing opening.

31. The wall structure as set forth in Claim 30 wherein each of said tensioning rods extends upwardly through said opening.

32. A method for constructing an above ground wall, said method comprising in combination:

- a) developing a footing at least partially in the ground at each end of the wall to be built;
- b) installing at least one tensioning rod to extend upwardly from each footing;
- c) building a post on each footing to provide a vertical cavity for receiving the at least one tensioning rod and to provide a vertical slot for receiving an end of the wall to be built;
- d) locating the ends of a lintel in the slots of the respective posts and upon the footings to locate the lintel above ground;
- e) laying a plurality of courses upon the lintel, each of the courses extending into the slots of the respective one of the posts; and
- f) installing a plurality of tensioning rods extending from within the lintel upwardly into the wall in conjunction with exercise of said step of laying.

33. The method as set forth in Claim 32 wherein said step of laying includes the step of laying concrete masonry units.

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34. The method as set forth in Claim 32 wherein said step of laying includes the step of laying bricks.

35. The method as set forth in Claim 32 wherein said step of building includes the step of laying blocks.

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Evidence Appendix

None

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Related Proceeding Appendix

None

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Respectfully submitted,

CAHILL, VON HELLENS & GLAZER P.L.C.

A handwritten signature in black ink, appearing to read "C. Robert von Hellens". The signature is fluid and cursive, with a large initial "C" and a stylized "R" and "V".

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